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EXAMINER
SQUIRES, BRETT S

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/594,986	JONES ET AL.
	Examiner	Art Unit	
	BRETT SQUIRES	2431	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 January 2009</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-66</u> is/are pending in the application.

    4a) Of the above claim(s) <u>46-66</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-45</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>29 September 2006</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>09/29/06</u>

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Election/Restrictions

1.   Applicant's election without traverse of Group I (Claims 1-45) in the reply filed on

January 14, 2009 is acknowledged.

Drawings

2.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4)

because reference character "18" has been used to designate both a not necessarily

secure e-mail client in Fig. 1 and a secure e-mail client in Fig. 2, reference character

"22" has been used to designate both a sender in Fig. 1 and a receiver in Figs. 2-3, and

reference character "24" has been used to designate both a receiver in Fig. 1 and a

sender in Figs. 2-3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are

required in reply to the Office action to avoid abandonment of the application. Any

amended replacement drawing sheet should include all of the figures appearing on the

immediate prior version of the sheet, even if only one figure is being amended. Each

drawing sheet submitted after the filing date of an application must be labeled in the top

margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If

the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the

drawings will not be held in abeyance.

3.   The drawings are objected to because text labels are necessary for the

applicant's drawings to be understood. Figures 1-4 contain rectangular boxes whose

meanings are unclear instead of conventional drawing symbols whose meanings are

readily apparent, such as the circuit elements that represent resistors, capacitors, or inductors. The examiner respectfully points the applicants to 37 CFR 1.84(n) and 1.84(o), which state, "Graphical drawing symbols may be used for conventional elements when appropriate," while "[o]ther symbols which are not universally recognized may be used, subject to approval by the Office," and that "[s]uitable descriptive legends may be used subject to approval by the Office, or may be required by the examiner where necessary for understanding of the drawing." Accordingly, the rectangular boxes require text labels necessary for understanding of the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4.   Claim 1 is objected to because of the following informalities: claim 1 recites "a key container by a key container directory," on page 2 line 4 and "a key container to the

requestor," on page 2 line 8 it is unclear whether the recited claim limitations are intended to refer to the same key container. Appropriate correction is required.

5.   Claim 6 is objected to because of the following informalities: claim 6 recites "a key container for each gateway," on page 2 line 27 and claim 6 depends from independent claim 1, which recites "a key container by a key container directory," on page 2 line 4 and "a key container to the requestor," on page 2 line 8 it is unclear whether the recited claim limitations are intended to refer to the same key container. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7.   Claims 2, 4, 12-14, 18, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8.   Claims 2 and 4, the recite phrase "such as," which renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

9.   Claims 12, 14 and 18 recite the limitations "if so," yet no limitation is provided for "if not." This issue is raised because the "if" conditional, by its very nature, exhibits alternative steps in the event the "if" conditional fails; the alternative step(s) may, or may

not, be limited to not performing any step(s). Accordingly, the meets and bounds of the

claim have not been clearly established. To remediate this issue, applicant must

remove the conditional or include the alternative step(s) when the conditional fails.

10.   Claim 13 recites the limitation "if not," yet no limitation is provided for "if so." This

issue is raised because the "if" conditional, by its very nature, exhibits alternative steps

in the event the "if" conditional succeeds; the alternative step(s) may, or may not, be

limited to not performing any step(s). Accordingly, the meets and bounds of the claim

have not been clearly established. To remediate this issue, applicant must remove the

conditional or include the alternative step(s) when the conditional fails.

11.   Claim 22 recites the limitation "the step of determining is based on the

information provided" in page 4 line 28. Neither claim 22 nor claims 21 and 1 recite

performing a determining step, therefore is insufficient antecedent basis for this

limitation in the claim.

Claim Rejections - 35 USC § 102

12.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

    A person shall be entitled to a patent unless –

    (e) the invention was described in (1) an application for patent, published under section 122(b), by
    another filed in the United States before the invention by the applicant for patent or (2) a patent
    granted on an application for patent by another filed in the United States before the invention by the
    applicant for patent, except that an international application filed under the treaty defined in section
    351(a) shall have the effects for purposes of this subsection of an application filed in the United States
    only if the international application designated the United States and was published under Article 21(2)
    of such treaty in the English language.

13.   Claims 1-21, 24-30, and 33-45 are rejected under 35 U.S.C. 102(e) as being

anticipated by Bandini et al. (US 2008/0270789).

Regarding Claims 1, 9-10, 30, 33:

         Bandini discloses a method of providing a key container ("Digital Certificates"

See paragraphs 41 and 44) by a key container directory ("Certificate Lookup Server"

See fig. 12 ref. no. 1210 and paragraphs 58-59), the key container to be used to secure

a message that will be sent from a sender to a recipient ("Encryption/signature and/or

decryption/verification of messages between transmitting and receiving cites" See figs.

5(a)-5(c) and paragraphs 43-46), receiving a request for the key container from a

requestor ("The e-mail firewall submits the e-mail address of the recipient or the domain

of the recipient's e-mail to the certificate lookup and verification server and optionally

submitting a description of the policy requirements, or preferences, for the certificates."

See paragraph 65 and "Client 508.1 provides encryption/decryption services to allow

messages to be transmitted securely through server 506 by supporting

encryption/decryption services." See paragraph 45), and in response to the request

providing a key container to the requestor that contains a cryptographic key of a

gateway that the message will transmit ("The response, which includes a sorted list of

one or more certificates is returned by the certificate lookup and verification server to

the security manager of the e-mail firewall." See paragraph 65) and an address of the

sender or the recipient ("Identification of the other S/MIME server through directory

domain records, association of directory domain records with server certificates and

selection of encryption/signature algorithms and key length." See paragraph 44 and

"Identification of the client 508.1 through directory user records with user certificates and selection of encryption/signature algorithms and key length." See paragraph 45).

Regarding Claims 2-3 and 44:

Bandini discloses the key container directory is remote from the gateway and external to the network domain of the recipient ("An external certificate lookup server 1210 is employed to provide security data, including certificate date to e-mail firewalls." See fig. 12 ref. no. 1210 and paragraph 58).

Regarding Claim 4:

Bandini discloses the message is transmitted from the sender over an insecure computer network ("Internet" See fig. 5(a)-5(c) ref. no. 104).

Regarding Claim 5:

Bandini discloses the network domain of the recipient is secure ("A first plurality of user computers 1208 is coupled to a first firewall 1202 by a local connection. In one embodiment the local network connection between the user computers 1208 and the e-mail firewall 1202 is a secure private network, as is known in the art." See fig. 12 ref. nos. 1202, 1208, and paragraph 58).

Regarding Claim 6:

Bandini discloses providing a key container having a key container for each gateway that the message will transit ("The response, which includes a sorted list of one or more certificates is returned by the certificate lookup and verification server to the security manager of the e-mail firewall." See paragraph 65).

Regarding Claim 7:

Bandini discloses determining the identity of one or more gateways that the message will transit ("Identification of the other S/MIME server through directory domain records, association of directory domain records with server certificates and selection of encryption/signature algorithms and key length." See paragraph 44).

Regarding Claim 8:

Bandini discloses the key container directory provides multiple key containers in the response to the request ("The response, which includes a sorted list of one or more certificates is returned by the certificate lookup and verification server to the security manager of the e-mail firewall." See paragraph 65).

Regarding Claim 11:

Bandini discloses determining what type of key container should be provided to the requestor ("Encryption is preferably performed by one of the following symmetric encryption algorithms: DES, Triple-DES, RC2, and other algorithms introduced by revisions of the S/MIME standard." See paragraph 41).

Regarding Claims 12-13:

Bandini discloses determining whether the requestor is the sender of the message and if so providing an encryption key container to the requestor ("The security manager 226 is accessing the recipient's or the e-mail firewall's public key." See paragraph 56).

Regarding Claim 14:

Bandini discloses determining whether the requestor is from the same domain as the gateway and if so, Providing the encryption key container having the cryptographic

key of the requestor's gateway ("A message by client 508.2 to client 508.1 may be

encrypted when transmitted to server 105.1, decrypted by server 105.1 and subjected to

appropriate actions by the policy managers. The message may then be encrypted for

transmission to server 105.2 decrypted by server 105.2 and Subjected to appropriate

actions by the policy managers, and encrypted for transmission to client 508.1 which

decrypts the message." See fig. 5(c) and paragraph 46).

Regarding Claim 15:

    Bandini discloses the requestor is the gateway and the request includes the

address of the sender ("The e-mail firewall submits the e-mail address of the recipient or

the domain of the recipient's e-mail." See paragraph 65).

Regarding Claims 16 and 38-40:

    Bandini discloses the requesting the key contain includes an indication that a

signing key container is requested ("The S/MIME protocol is well known and widely

used and provides encryption and digital signatures." See paragraph 41).

Regarding Claims 17-20:

    Bandini discloses the e-mail firewall determines if the e-mail message is such

that a signature is added and an e-mail firewall policy refers to the e-mail message

textual content, destination, source, and size, in determining whether a signature is

required (See paragraph 55)

Regarding Claim 21:

Bandini discloses the requestor authenticating with the key container directory ("The communication between the e-mail firewall and the certificate lookup and verification server is preferably authentication." See paragraph 66).

Regarding Claim 24:

Bandini discloses once the request has been received generating the request key container ("The e-mail firewall submits the e-mail address of the recipient or the domain of the recipient's e-mail to the certificate lookup and verification server and optionally submitting a description of the policy requirements, or preferences, for the certificates. The certificate lookup and verification server responds by facilitating the lookup and verification according to its own policies or according to the policies submitted by the e-mail firewall." See paragraph 65).

Regarding Claim 25:

Bandini discloses the request is made using a Lightweight Directory Access Protocol ("The certificate lookup module preferably employs the Light-weight Directory Access Protocol to query the remote servers for certificates." See paragraph 61).

Regarding Claim 26:

Bandini discloses the key container contains a cryptographic key that is a public key ("E-mail firewalls provide key pair and public key certificate generation." See paragraph 44).

Regarding Claim 27:

Bandini discloses the key container is a digital certificate ("S/MIME

advantageously offers security services for authentication using digital certificates." See

paragraph 41).

Regarding Claim 28:

Bandini discloses the key container is a Pretty Good Privacy public key ("It

should be understood that other secure message protocols such as Pretty Good Privacy

or Open PGP, as specified y the ITF working group may also be used.").

Regarding Claim 29:

Bandini discloses the address contained in the key container is an e-mail

address ("An e-mail from a company's CEO to the company's legal counsel by the

domain of full –email address can be specified to require either encryption, signature, or

both." See paragraph 39) and the gateway is an e-mail gateway ("Mail Server" See figs.

5(a)-5(c) and "E-mail Firewall" See fig. 12 ref. nos. 1202 and 1203).

Regarding Claims 34-36 and 42:

Bandini discloses encryption is preferably performed by one of the following

symmetric encryption algorithms: DES, Triple-DES, RC2, and other algorithms

introduced by revisions of the S/MIME standard (See paragraph 41).

Regarding Claim 37:

Bandini discloses the sender's address is from the same domain as the gateway

("A first plurality of user computers 1208 is coupled to a first firewall 1202 by a local

connection. In one embodiment the local network connection between the user

computers 1208 and the e-mail firewall 1202 is a secure private network, as is known in

the art." See fig. 12 ref. nos. 1202, 1208, and paragraph 58).

Regarding Claim 41:

Bandini discloses the key container includes information that permits a requestor

to determine the authenticity and integrity of the key container ("When the source of

digital certificates is not fully trusted, the security manager 226 first verifies the validity

of the digital certificate before employing it to encrypt a message." See paragraph 56)

Regarding Claim 43:

Bandini discloses the key container includes information about the key container

directory that provided the key container ("The policy actions include verifying the

signing certificate against a configurable list, verifying the digital certificate validity

dates, verifying the key strength and algorithm allowed by the certificate, verifying the

certificate usage, verifying the certificate chain, verifying that the root certificate is in a

list of acceptable root certificate, and verifying that the certificate is not revoked." See

paragraph 50).

Regarding Claim 45:

Bandini discloses the key container directory has a datastore of cryptographic

keys that can be contained in any provided key container ("The certificate lookup server

1210 preferably stores security data that is available to security processes in the

firewalls 1202, 1203 for facilitating secure communications of e-mail messages over the

public network 1204.")

Claim Rejections - 35 USC § 103

14.　　The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

15.　　Claims 22-23 are rejected under 35 U.S.C. 103(a) as being obvious over Bandini

et al. (US 2008/0270789) in view of Elliott et al. (US 6,335,927).

　　　　Bandini discloses the above stated method for messaging security having the

communication between the e-mail firewall and the certificate lookup and verification

server authenticated (See paragraph 66).

　　　　Bandini does not disclose the authentication is through the use of a valid

username and password combination.

　　　　Elliot discloses an authentication server that authenticates a user by checking a

user name and password against a database of valid user names and passwords (See

col. 256 lines 10-32).

　　　　It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Bandini to include checking a user name and password against a

database of valid user names and passwords such as that taught by Elliott in order to

prevent unauthorized users from accessing the certificate lookup and verification server.

16.　　Claims 31-32 are rejected under 35 U.S.C. 103(a) as being obvious over Bandini

et al. (US 2008/0270789) in view of Ishiguro (US 2003/0185399).

Bandini discloses the above stated method for messaging security user key containers ("Digital Certificates" See paragraphs 41 and 44).

Bandini does not disclose the key container contains information that invalidates its use at a time in the future.

Ishiguro discloses an information processing apparatus that uses public key certificates the have an expiration date of the public key certificate (See fig. 27 and paragraph 204).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Bandini to include using an expiration date such as that taught by Ishiguro in order to allow secure e-mail privileges to be revoked through the use of temporarily valid digital certificates instead of permanently valid digital certificates.

Conclusion

17.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRETT SQUIRES whose telephone number is (571) 272-8021. The examiner can normally be reached on 9:30am - 6:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BS/
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